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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

POON, KING Y

ART UNIT	PAPER NUMBER
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2624

DATE MAILED: 01/16/2002

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/364,070

Applicant(s)

Akihiro Suzuki et al.

Examiner

King Y. Poon

Art Unit

2624

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____

2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-6, 15, and 16 is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-6, 15, and 16 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirements.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☒ All b) ☐ Some* c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)

19) ☐ Notice of Informal Patent Application (PTO-152)

17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 3

20) ☐ Other: _____

Art Unit: 2624

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. Claims 1, 3, 4, 15, and 16 rejected under 35 U.S.C. 102(e) as being anticipated by Sugiura et al. (U.S. Patent # 6,047,111)

Regarding claim 1: Sugiura teaches a job processing system (column 2, lines 45-50) comprising a terminal equipment (host device, column 2, line 49) for issuing a job request (print request, column 2, line 48) by handling a plurality of documents (A1, A2, A3, A4, fig. 10A) as one job, and a job scheduling device (CPU 11, fig. 6) which sequentially processes jobs (print job is connected to print queue connection points page by page, column 8, lines 15-20, fig. 10A) that by storing the jobs, received from the terminal equipment through a network, (column 6, line 38) in a queue (column 7, lines 50-60) and sending a job execution section (23, fig. 6) a processing request (request process of print, fig. 11b) relating to a document specified by the job stored in the queue, the terminal equipment comprising: attribute information adding means (the program

Art Unit: 2624

code that allows users to assign paper feed inlet and paper discharge outlet, column 10, lines 20-32) for adding to information which specifies a job output method to a job request as attribute information of the job, and the job scheduling device comprising: attribute information setting means (the function part of the printer control that is controlling the print specification information, column 7, lines 50-60, fig. 7) for acquiring attribute information (fig. 7) included in the received job and sets the attribute information (column 7, lines 55-60) to information which specifies a job and a document; (fig. 10A) a queue for storing, (column 7, lines 55-60) as a job, a group of items of the information which specify a job and a document; (fig. 7) and output result control means (the function part of the printer control that carries out printing in accordance with the print request, column 3, lines 33-35) which, upon reference (in accordance, column 3, line 33-34) to the information items (printing specification, column 3, lines 23-25, fig. 7) which specify a job and a document with respect to the job stored in the queue, controls the processing request issued to the job execution section in such a way that a specified number of copies (fig. 10c shows one copy of each job are output) of the job are output using the information (print specification, fig. 7) which specifies a job output method.

Regarding claim 3: Sugiura et al. teach a job processing system (column 2, lines 45-50) comprising a terminal equipment (host device, column 2, line 49) for issuing a processing request by (print request, column 2, line 48) handling a plurality of documents (A1, A2, A3, A4, fig. 10A) as one job, a job execution section (23, fig. 6) for printing the documents, and a job scheduling device (CPU, fig. 6) which accepts a document fig. 8) input from the terminal

Art Unit: 2624

equipment through a network (column 6, line 38) and issues a processing request relating to that document to the job execution section, (S17, fig. 11B) the terminal equipment comprising: control information specifying means (the program code that allows users to assign the printing of A1, A2, A3, and A4, fig. 10A) for specifying a processing start wait (connected to BMM, column 8, line 44) for a leading document (A1) among the plurality of documents, and the job scheduling device comprising: preparation means (the function of the printer CPU that controls the print specification information, column 7, lines 55-60) for preparing information which specifies a received document; (fig. 7) queuing means (column 7, lines 55-60) for storing the prepared information which specifies the document by associating the information on a job-by-job basis; (fig. 7) control information setting means (the function of the print CPU that set print specification information, fig. 7) which, if a processing start wait is specified (information of queue connection, fig. 7) for the leading document (A1, fig. 10A) among a plurality of received documents, (A1, A2, A3, A4, fig. 10A) sets the processing start wait (set the connection point to BMM, column 8, line 44, fig. 7) to information for specifying this leading document; and control state setting means which, (S15, fig. 11B) if the processing start wait is set to information which specifies the leading document of the job stored in the queuing means, renders that job in a processing start wait state, (S6, fig. 11B) wherein the job scheduling device sequentially retrieves jobs stored in the queuing means when the job execution section becomes enabled to accept processing, (fig. 10A) issues a processing request (S17, fig. 11B) for a corresponding document when there is information specifying a document to which a processing

Art Unit: 2624

request can be issued, and when a job is placed in the processing start wait state, prevents the issue of processing requests with respect to a document for that job (when the document is in BMM state, the program cannot request process of print, fig. 11B) and documents for subsequent jobs until that job is released from the processing start wait state by a user's instruction or a timeout (the time is complete from S6 to S8, fig. 11B).

Regarding claim 4: Sugiura et al. teach a job processing system (column 2, lines 45-50) comprising a terminal equipment (host device, column 2, line 49) for issuing a processing request by (print request, column 2, line 48) handling a plurality of documents (A1, A2, A3, A4, fig. 10A) as one job, a job execution section (23, fig. 6) for printing the documents, and a job scheduling device (CPU, fig. 6) which accepts a document fig. 8) input from the terminal equipment through a network (column 6, line 38) and issues a processing request relating to that document to the job execution section, (S17, fig. 11B) the terminal equipment comprising: control information specifying means (the program code that allows users to assign the printing of A1, A2, A3, and A4, fig. 10A) for specifying a processing completion wait (connected to BMM, column 8, line 44) for a leading document (A1) among the plurality of documents, and the job scheduling device comprising: preparation means (the function of the printer CPU that controls the print specification information, column 7, lines 55-60) for preparing information which specifies a received document; (fig. 7) queuing means (column 7, lines 55-60) for storing the prepared information which specifies the document by associating the information on a job-by-job basis; (fig. 7) control information setting means (the function of the print CPU that

Art Unit: 2624

set print specification information, fig. 7) which, if a processing completion wait is specified (information of queue connection, fig. 7) for the leading document (A1, fig. 10A) among a plurality of received documents, (A1, A2, A3, A4, fig. 10A) sets the processing completion wait (set the connection point to BMM, column 8, line 44, fig. 7) to information for specifying this leading document; and control state setting means which, (S15, fig. 11B) if the processing start wait is set to information which specifies the leading document of the job stored in the queuing means, renders that job in a processing completion wait state, (S6, fig. 11B) wherein the job scheduling device sequentially retrieves jobs stored in the queuing means when the job execution section becomes enabled to accept processing, (fig. 10A) issues a processing request (S17, fig. 11B) for a corresponding document when there is information specifying a document to which a processing request can be issued, and when a job is placed in the processing start completion state, prevents the issue of processing requests with respect to a document for that job (when the document is in BMM state, the program cannot request process of print, fig. 11B) and documents for subsequent jobs until that job is released from the processing completion wait state by a user's instruction or a timeout (the time is complete from S6 to S8, fig. 11B).

Regarding claim 15: Sugiura et al. teach a job scheduling device (fig. 6) which sequentially stores jobs, (fig. 7, column 7, lines 55-60, column 8, lines 15-20) for which processing requests (print request, column 8, line 18) were received from terminals, (host, column 8, line 16) in a queue (column 7, line 58) and sequentially processes the jobs (fig. 7) held in the queue using a job execution section, (23, fig. 6) the job scheduling device comprising: a

Art Unit: 2624

plurality of queues (wait for BMM acquirement queue, wait for extension queue, wait for print queue, wait for paper discharge queue, and stop wait queue, fig. 10A, column 8, lines 10-12) provided corresponding to states of the jobs; (non stop state, (BMM acquirement, extension, print, paper discharge), and stop state, fig. 10A) scheduling means (the function part of the print control that connect each print job to a print queue connection point, column 8, lines 10-30) for scheduling the jobs using the plurality of queues; (wait for BMM acquirement queue, wait for extension queue, wait for print queue, wait for paper discharge queue, and stop wait queue, fig. 10A, column 8, lines 10-12) and recovery means (function part of the print control that renew the print job form stop state to non stop state, (BMM acquirement, extension, print, paper discharge), fig. 10C) for recovering previous state of each of the jobs (A1, A2, A3, A4) being held in the plurality of queues, at the time of recovery from a failure, (printing for host A requires A3 size while A4 paper is contained in the hopper, column 8, lines 30-35) if any failure occurred while the jobs are being scheduled by the scheduling means. (Fig. 10A, fig. 10B)

Regarding claim 16: Sugiura et al. teaches a job scheduling device (fig. 6) for storing, in a queue, (column 7, line 58) print jobs (fig. 7, column 7, lines 55-60, column 8, lines 15-20) which include print data and attribute information (fig. 7) and for which processing requests (print request, column 8, line 18) were received from terminals, (host, column 8, line 16) and for sequentially printing the print jobs held in the queue (fig. 10A) based on the attribute information using a job execution section, (print operation section, fig. 6) the job scheduling device comprising: a plurality of queues (wait for BMM acquirement queue, wait for extension queue,

Art Unit: 2624

wait for print queue, wait for paper discharge queue, and stop wait queue, fig. 10A, column 8, lines 10-12) provided corresponding to print job states; (non stop state, (BMM acquirement, extension, print, paper discharge), and stop state, fig. 10A) scheduling means (CPU, fig. 6, column 7, lines 50-65) for scheduling the print jobs using the plurality of queues; and attribute modifying means (the function part of the print control that is controlling the change of paper feed inlet pattern, column 10, lines 60-65) for modifying the attribute information (definition of the paper inlet pattern, column 10, line 64) only when a print job can be changed at the time that an instruction (command generated after depressing the set key, column 10, line 61) for modifying the attribute information (paper feed inlet, column 10, lines 19-21) of the print job is received, and when the instruction is free from errors (the attribute information can only be changed by a user's program, column 10, lines 45-60, when the instruction is programed wrong by the user, the correct instruction cannot be changed).

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 6 is rejected under 35 U.S.C. 102(b) as being anticipated by Lobiondo (U.S. Patent # 5,287,194).

Art Unit: 2624

Regarding claim 6: Lobiondo teaches a job processing system (fig. 1) comprising a terminal equipment workstation, column 3, lines 29-35) for issuing a processing request, (column 3, lines 55-60) and a job scheduling device (scheduler, column 3, line s 35-50) which sequentially processes jobs (fig. 4, shows that the program of the scheduler process print job individually) by storing the jobs received from the terminal equipment in a queue (spooler, column 3, line 58) and issuing a processing request, (allocating print job, column 6, line 59) relating to a document specified by the job stored in the queue, to a job execution section, (available printer, column 7, line 5-10) the terminal equipment comprising: attribute information adding means (column 3, lines 33-35) for adding information relating to job wait control (the time the job is to be finished, column 4, line 40-45) and message to information relating to the wait control to the job request as attribute information, (information entered, column 3, lines 50-65) and the scheduling device comprising: job information preparing means (the function part of the scheduler checking print job for different job requirement, column 4, lines 49-51)for preparing job information which specifies a received job; attribute information setting means (the function part of the scheduler allocating print job to printer that meet the requirement, column 4, lines 45-65) for setting attribute information included in the received job in the job information; a queue (print spooler, column 3, line 58) for storing the prepared job information in order; control state setting means which, (the function part of the scheduler that is setting the print job to be printed on time, column 4, lines 50-60) if wait control is set to the job information stored in the queue, renders (allocating print job to printers, column 4, lines 54-60) a job associated with that

Art Unit: 2624

job information in a wait control state when processing of that job is started or completed; and message information informing means (the function part of the scheduler that is informing user information set with respect to print job, column 5, lines 10-15) which, when the job enters the wait control state, informs the terminal equipment of message information set with respect to that job.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiura et al. (U.S. Patent # 6,047,111) in view of Rourke et al. (U.S. Patent # 5,398,289).

Regarding claim 2: Sugiura teaches a job processing system (column 2, lines 45-50) comprising a terminal equipment (host device, column 2, line 49) for issuing a job request (print request, column 2, line 48) by handling a plurality of documents (A1, A2, A3, A4, fig. 10A) as one job, and a job scheduling device (CPU 11, fig. 6)) which sequentially processes jobs (print job is connected to print queue connection points page by page, column 8, lines 15-20, fig. 10A) that by storing the jobs, received from the terminal equipment through a network, (column 6, line 38) in a queue (column 7, lines 50-60) and sending a job execution section (23, fig. 6) a

Art Unit: 2624

processing request (request process of print, fig. 11b) relating to a document specified by the job stored in the queue, the terminal equipment comprising: attribute information adding means (the program code that allows users to assign paper feed inlet and paper discharge outlet, column 10, lines 20-32) for adding to information which specifies a job output method to a job request as attribute information of the job, and the job scheduling device comprising: attribute information setting means (the function part of the printer control that is controlling the print specification information, column 7, lines 50-60, fig. 7) for acquiring attribute information (fig. 7) included in the received job and sets the attribute information (column 7, lines 55-60) to information which specifies a job and a document; (fig. 10A) a queue for storing, (column 7, lines 55-60) as a job, a group of items of the information which specify a job and a document; (fig. 7) and output result control means (the function part of the printer control that carries out printing in accordance with the print request, column 3, lines 33-35) which, upon reference (in accordance, column 3, line 33-34) to the information items (printing specification, column 3, lines 23-25, fig. 7) which specify a job and a document with respect to the job stored in the queue, controls the processing request issued to the job execution section in such a way that a specified number of copies (fig. 10c shows one copy of each job are output) of the job are output using the information (print specification, fig. 7) which specifies a job output method.

Sugiura does not teach adding information relating to the number of copies of the job and information relating to a job output result to the job request as job attribute information; and a specified number of copies of the job are only output in a collated manner if collation processing

Art Unit: 2624

is specified or a specified number of copies of the job are only output in an uncollated manner if uncollation processing is specified.

Rourke, in the same area of programming print job teaches: adding information relating to the number of copies of the job (column 8, lines 24-25) and information relating to a job output result to the job request as job attribute information; and a specified number of copies of the job are only output in a collated manner if collation processing is specified (column 8, lines 23-46) or a specified number of copies of the job are only output in an uncollated manner if uncollation processing is specified.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Sugiura to include: adding information relating to the number of copies of the job and information relating to a job output result to the job request as job attribute information; and a specified number of copies of the job are only output in a collated manner if collation processing is specified or a specified number of copies of the job are only output in an uncollated manner if uncollation processing is specified.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Sugiura by the teaching of Rourke because of the following reasons: (a) it would have allowed users to select the number of copies of a print job to be printed, and (b) it would have allowed users to set a print job according to his own preference such as printing a print job collated or uncollated.

Art Unit: 2624

7. Claims 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiura et al. (U.S. Patent # 6,047,111) in view of Nezu. (U.S. Patent # 5,638,511).

Regarding claim 5: Sugiura et al. teach a job processing system (column 2, lines 45-50) comprising a terminal equipment (host device, column 2, line 49) for issuing a processing request by (print request, column 2, line 48) handling a plurality of documents (A1, A2, A3, A4, fig. 10A) as one job, a job execution section (23, fig. 6) for printing the documents, and a job scheduling device (CPU, fig. 6) which accepts a document fig. 8) input from the terminal equipment through a network (column 6, line 38) and issues a processing request relating to that document to the job execution section, (S17, fig. 11B) the terminal equipment comprising: control information specifying means (the program code that allows users to assign the printing of A1, A2, A3, and A4, fig. 10A) for specifying an input wait (connected to BMM, column 8, line 44) for a leading document (A1) among the plurality of documents, and the job scheduling device comprising: preparation means (the function of the printer CPU that controls the print specification information, column 7, lines 55-60) for preparing information which specifies a received document; (fig. 7) queuing means (column 7, lines 55-60) for storing the prepared information which specifies the document by associating the information on a job-by-job basis; (fig. 7) control information setting means (the function of the print CPU that set print specification information, fig. 7) which, if an input wait is specified (information of queue connection, fig. 7)for the leading document (A1, fig. 10A) among a plurality of received documents, (A1, A2, A3, A4, fig. 10A) sets the input wait (set the connection point to BMM,

Art Unit: 2624

column 8, line 44, fig. 7) to information for specifying this leading document; and control state setting means which, (S15, fig. 11B) if the input wait is set to information which specifies the leading document of the job stored in the queuing means, renders that job in an input wait state, (S6, fig. 11B) wherein the job scheduling device sequentially retrieves jobs stored in the queuing means when the job execution section becomes enabled to accept processing, (fig. 10A) issues a processing request (S17, fig. 11B) for a corresponding document when there is information specifying a document to which a processing request can be issued, and when a job is placed in the input wait state, prevents the issue of processing requests with respect to a document for that job (when the document is in BMM state, the program cannot request process of print, fig. 11B) and documents for subsequent jobs until that job is released from the input wait state by a user's instruction or a timeout (the time is complete from S6 to S8, fig. 11B).

Sugiura does not teach using a password to control processing of documents.

Nezu, in the same area of programming print job teaches: to use a password (collation key abstract) for controlling the precessing of print jobs.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Sugiura to include: using a password to control processing of the document.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Sugiura by the teaching of Nezu because of the following

Art Unit: 2624

reasons: (a) it would have added security in the printing process for the users by allowing users having the correct password to access a print job.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to King Y. Poon whose telephone number is (703) 305-0892

GABRIEL GARCIA
PRIMARY EXAMINER
January 14, 2002

A handwritten signature in black ink that reads "Gabriel Garcia". The signature is written in a cursive, flowing style with a large initial 'G'.